

NHLBI BRP: Gene Therapy for Myocardial Stunning and Infarction

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Specific Aims:

Validate a novel cardiac MRI pulse sequence and use it to characterize remote zone LV dysfunction in mice.

Probe the pathophysiology of remote zone LV dysfunction post-MI using a pharmacologic approach.

Probe the pathophysiology of remote zone LV dysfunction post-MI using genetic approaches.

Determine the role of hematopoietic cells in remote zone LV dysfunction.

Studies and Results:

1) 3D characterization of myocardial mechanics using SPAMM tagging.

2) Characterization of myocardial mechanics using 3D DENSE.

3) Characterization of remote zone LV dysfunction post-MI in iNOS KO mice using DENSE.

